

**Date**: December 2, 2017

**Grade**: 3rd

**Subjec**t: Science

**Standards:**

* Obtain and combine information about ways individual communities use science ideas to protect Earth’s resources and environment.
* Students will access, generate, process, and transfer information using appropriate technologies
* Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning

**Goals/Objectives:**

Students will learn about what is energy.

Students will learn that energy can make matter move, grow and change.

Students will learn some forms of energy.

**Vocabulary:**

* Chemical Energy
* Electrical Energy
* Mechanical Energy

**Materials:**

* Power Point Slides (What is Energy?)
* Construction Paper for Books
* Graphic Organizer( Chart Items in the classroom)
* Article: “*Protecting Our Earth”* with questions to follow

**Activity/Procedure:**

Teacher created Power Point slides will be presented.

All slides will have photographs to go along with each statement.

**Slide 1**: What is energy? Energy is the ability to do work. Energy can

make matter **move**, **grow** or **change**.

**Slides 2, 3, 4**:

Energy can make things **move.**

Example: A football player uses energy to kick a ball. Energy moves form the player’s foot to the ball. This energy makes the ball move to a new place.

Energy can make things **change**.

Energy in the air can cause a physical change. Think of ice, an ice cube can turn from solid to liquid. Energy from fire can burn wood. This chemical change turns wood into smoke, ash and gas.

Energy can also make things **grow**.

Energy helps plants make food and grow. All living things need energy to survive.

**Turn and Talk**

**Think of other ways energy can make matter move, grow or change. Discuss with your partner.**

**Slide 5:**

What are some forms of energy?

**1. Chemical energy** can be stored in matter. Gasoline and food both have chemical energy in them.

**2. Heat energy** can make cool things hotter.

**3. Electrical energy** can make machines work. It gives machines the power they need to do their job.

**4. Mechanical Energy** comes from things that move. Wind has mechanical energy. We can turn wind’s energy into electrical energy.

**Turn and Talk**

**Teacher created question to keep students engaged.**

**Partner/Independent Activity Stations:**

**Station 1:** Students will be energy detectives with a partner and investigate items in the classroom that use energy. They will record the information on paper given. The four forms of energy used will be heat, chemical, electrical and mechanical.

**Teacher will have vocabulary cards posted with pictures and a description of each one.**

**Station 2:** Create a flip-book illustrating and writing how energy can make things move, grow and change.

**Teacher will print out slides 2,3,&4 for students to refer to for this station.**

**Station 3**: Read article “*Protecting Our Earth*” and answer questions after reading the passage

**Assessment:**

**Students will use classroom colored PAWS to self-assess.** Teacher will record when conferencing and make any necessary adjustments to follow-up activities.